

### Remarks

Claims 1-23 are pending in this application. Each of claims 1-23 has been rejected as being anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 5,483,499 to Brumley et al.

#### **A. Claim 1**

Claim 1 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Brumley. A rejection under Section 102 requires that every element of the rejected claim be present in a single prior art reference. Here, the elements of amended claim 1 are simply not present in Brumley.

Claim 1 has been amended above to further clarify that the ROV and the associated ADCP of the invention collect data *while moving in the vertical direction* in a water column. In particular, with reference to the ROV, claim 1 specifies that the ROV is “operable to move in a vertical direction in a water column and to collect data while moving in the vertical direction in the water column.” With reference to the ADCP, claim 1 provides that the ADCP is “operable to move in a vertical direction in a water column and to collect data while moving in the vertical direction in a water column.” From this language, it is plain that the ROV and the ADCP of claim 1 move in an up and down direction through a water column and collect data while moving in the up and down direction in the water column.

In contrast with the invention of claim 1, Brumley in no way discloses a system that includes an ROV and an ADCP that move in the vertical direction through a water column and collect data while moving in the vertical direction through a water column. This feature is simply not shown in Brumley. Further, it is nowhere suggested in Brumley that the identified

ROV and ADCP of Brumley can collect data while moving in the vertical direction through a water column.

In particular, the examiner has identified column 10, lines 54-65 of Brumley as disclosing the element of “receiving and processing ADCP data and ROV data and displaying processed data in real time as the ADCP and ROV are moving in the vertical direction through a water column.” (Page 2 of the Office Action of June 16, 2003). The full text of this passage is provided below:

In Fig. 5, the transducers 152 are connected to one end of a cylindrical pressure vessel 154 wherein acoustic transmitting, receiving and processing electronics are contained. The transducers 152 are positioned at 90° intervals of azimuth around the periphery of the pressure vessel 154 in a Janus configuration. To achieve multiple degrees of freedom in calculating orthogonal components of velocity, the transducers 152 are canted outward from the longitudinal axis of the pressure vessel 154. The mechanical assembly 150 is conveniently positioned in the water by connecting one or more cables and/or buoys to a pair of mounting lugs 158a,b (sic) located on the side of pressure vessel 156.

(column 10, lines 54-65 of Brumley). According to the Examiner, the claimed ROV is anticipated by the mechanical assembly 150, and the claimed ADCP is anticipated by transducers 152. Nowhere in the cited passage (or in any other passage in Brumley) is there any description of an ROV (identified as mechanical assembly 150) or an ADCP (transducers 152) moving in the vertical direction through a water column, and neither is there any suggestion in Brumley of an ROV or an ADCP collecting data while moving in the vertical direction through the water column. In addition, there is simply no disclosure or suggestion in Brumley that the mechanical assembly 150 of Brumley, which is identified by the examiner as anticipating an ROV, is able to collect data.

It is plain from an analysis of Brumley that Brumley does not disclose or even suggest a system that involves an ROV and an ADCP that move in the vertical direction through a water column while collecting data. This mechanical assembly 150 and transducers 152 of Brumley do not possess this feature, and thus Brumley does not anticipate amended claim 1, and the rejection of claim 1 should be withdrawn.

**B. Claim 8**

Independent claim 8 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Brumley. A rejection under Section 102 requires that every element of the rejection claim be present in a single prior art reference. Here, the elements of amended claim 8 are simply not present in Brumley.

Claim 8 has been amended to clarify that data is received from each of the ROV and ADCP as each of the ROV and ADCP are moving in a vertical direction through a water column. The claim specifies that the collected data is “representative of and associated with a depth cell of the water column being transversed by” the ROV and ADCP. The feature of having an ROV and ADCP that collect and transmit data about the depth cells of a water column while moving through the water column is simply not disclosed or even suggested by Brumley. As discussed above with respect to claim 1, the mechanical assembly 150 and transducers 152 of Brumley, which have been identified as the ROV and ADCP of Brumley, do not possess the functionality of moving through a water column while collecting and transmitting data concerning the depth cells of that water column. Brumley, including the mechanical assembly 150 and transducers 152 of Brumley, simply does not disclose or suggest this feature. As such, amended claim 8 is not anticipated by Brumley, and the rejection of claim 8 should be withdrawn.

**C. Claim 16**

Independent claim 16 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Brumley. A rejection under Section 102 requires that every element of the rejection claim be present in a single prior art reference. Here, the elements of amended claim 16 are simply not present in Brumley.

Claim 16 has been amended to clarify that the data received from the ADCP is data collected by the ADCP as the ADCP is moving in the vertical direction through a water column and that the collected data is “representative of and associated with a depth cell of the water column being transversed by the ADCP.” Having an ADCP that collects and transmits data about the depth cells of a water column while moving through the water column is simply not disclosed or even suggested by Brumley. As discussed above with respect to claims 1 and 8, there is no suggestion in Brumley that the transducers 152 of Brumley, which have been identified by the Examiner as ADCP of Brumley, move vertically through a water column while collecting and transmitting data concerning the depth cells of that water column. Brumley, including the transducers 152 of Brumley, simply does not disclose or suggest this feature. As such, amended claim 16 is not anticipated by Brumley, and the rejection of claim 16 should be withdrawn.

**D. Claims 2-7, 9-15, and 17-23**

Claims 2-7, 9-15, and 17-23 have each been rejected under 35 U.S.C. § 102(b) as being anticipated by Brumley. Because each of claims 2-7, 9-15, and 17-23 depend from an otherwise allowable base claim, these claims will not be discussed individually. The rejection of claims 2-7, 9-15, and 17-23 should be withdrawn, and these claims should be passed to issuance.

**E. Request for an Interview**

The applicants hereby make a formal request for an interview with the examiner before the first action on this application, as provided in MPEP 706.07(b).

**Conclusion**

In view of the foregoing amendment and remarks, applicants respectfully request that the rejection of claims 1-23 be withdrawn and that these claims be passed to issuance.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. Fulghum', with a checkmark above it.

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